



PTO/SB/21 (02-04)

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Application Number	10/614,716
Filing Date	07/07/2003
First Named Inventor	Sreenivasan et al.
Art Unit	1732
Examiner Name	Unassigned
Attorney Docket Number	P90/MII-51-33V50

Total Number of Pages in This Submission

ENCLOSURES (Check all that apply)

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| <input checked="" type="checkbox"/> Information Disclosure Statement | <input type="checkbox"/> CD, Number of CD(s) _____ | Forty-two (42) References |
| <input type="checkbox"/> Certified Copy of Priority Document(s) | Remarks | Return Receipt Postcard to K. C. Brooks |
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Firm or Individual name Law Office of Kenneth C. Brooks

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Sreenivasan et al.

PATENT APPLICATION

Serial No.: 10/614,716

Group Art Unit: 1732

Filing Date: July 7, 2003

Examiner: Unassigned

For: A CONFORMING TEMPLATE FOR PATTERNING LIQUIDS DISPOSED
ON SUBSTRATES

INFORMATION DISCLOSURE STATEMENT

Commissioner
for Patents
Alexandria, VA 22313

Sir:

The following information is submitted in compliance
with Applicants' duty of disclosure under 37 C.F.R. § 1.56.

Form PTO-1449 and a copy of each reference recited below
accompanies this document. It is respectfully requested that
the cited information be expressly considered during the
prosecution of this application, and the references be made
of record therein and appear among the "references cited" on
any patent to issue therefrom.

ISSUED PATENTS

<u>Patent Number</u>	<u>Inventor</u>	<u>Grant Date</u>
4,724,222	Feldman	02/09/1988
4,731,155	Napoli et al.	03/15/1988
5,425,848	Haisma et al.	06/20/1995
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5,772,905	Chou	06/30/1998
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5,948,470	Harrison et al.	09/07/1999
6,039,897	Lochhead et al.	03/21/2000
6,309,580	Chou	10/30/2001
6,334,960	Willson et al.	01/01/2002
6,518,168	Clem et al.	02/11/2003

PENDING PATENT APPLICATIONS

<u>Serial Number</u>	<u>Inventor</u>	<u>Filing Date</u>
09/698,317	Choi et al.	10/27/2000
09/907,512	Sreenivasan et al.	07/16/2001
09/908,455	Choi et al.	07/17/2001
09/920,341	Choi et al.	08/01/2001
09/976,681	Bailey et al.	10/12/2001
10/136,188	Voisin	05/01/2002p
10/194,414	Sreenivasan et al.	07/11/2002
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FOREIGN PATENT DOCUMENTS

<u>Document Number</u>	<u>Inventor</u>	<u>Pub. Date</u>
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JP 1-196749	Matsumoto et al.	08/08/1989
WO 01/69317	Montelius et al.	09/20/2001
WO 01/79592	Hallberg et al.	10/25/2001
WO 01/90816	Heidari	11/29/2001

NON-PATENT DOCUMENTS

Krug, Herbert et al. "Fine Patterning of Thin Sol-Gel Films,"
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Krauss, et al. "Fabrication of Nanodevices Using Sub-25nm
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3116, 1995.

Chou et al. "Imprint of Sub-25 nm Vias and Trenches in
Polymers," Applied Physics Letters, 67(21), pp. 3114-3116,
1995.

Chou et al. "Imprint Lithography with 25-Nanometer
Resolution," Science, vol. 272, Apr. 5, 1996, pp. 85-87.

- Haisma, J. et al. "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, 1996, 14, 4124-4128.
- Chou et al. "Imprint Lithography with Sub-10 nm Feature Size and High Throughput", Microelectronic Engineering 35, 1997, 237-240.
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- Scheer, H.C. et al. "Problems of Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, 1998, 16, 3917-3921.
- Colburn, M. et al. "Step and Flash Imprint Lithography: New Approach to High-Resolution Patterning," Proc. of SPIE, 1999, 3676, 379-389.
- Chou, Stephen et al. "Lithographically-induced Self Assembly of Periodic Micropillar Arrays," Journal of Vacuum Science and Technology, 1999, 17, 3197-3202.
- Ruchhoeft, P. et al. "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," Journal of Vacuum Science and Technology, 1999, 17, 2965-2982.
- Choi, B.J. et al. "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering, 2001, 25, 192-199.

Otto M. et al., "Step and Repeat UV-Nanoimprint Lithography: Material Issues," Nanoimprint and Nanoimprint Technology Conference, San Francisco, December 11-13, 2002.

Johnson et al., "Advances in Step and Flash Imprint Lithography," SPIE Microlithography Conference, February 23-28, 2003.

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Date: March 11, 2004

Respectfully



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Reg. No.' 38393

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

1

of

5

Complete if Known

Application Number

10/614,716

Filing Date

07/07/03

First Named Inventor

Sreenivasan et al.

Group Art Unit

1732

Examiner Name

Unassigned

Attorney Docket Number

P90/MII-51-33V50

U.S. PATENT DOCUMENTS

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Substitute for form 1449A/PTO <h1>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h1> <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/614,716
				Filing Date	07/07/03
				First Named Inventor	Sreenivasan et al.
				Group Art Unit	1732
				Examiner Name	Unassigned
				Attorney Docket Number	P90/MII-51-33V50
Sheet	2	of	5		

[illegible]

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				Application Number	10/614,716
				Filing Date	07/07/03
				First Named Inventor	Sreenivasan et al.
				Group Art Unit	1732
				Examiner Name	Unassigned
Sheet	3	of	5	Attorney Docket Number	P90/MII-51-33V50

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A17	KRUG et al., "Fine Patterning of Thin Sol-Gel Films," Journal of Non-Crystalline Solids, 1992, pp. 447-450, vol. 147 & 148.	
	A18	Krauss et al., "Fabrication of Nanodevices Using Sub-25nm Imprint Lithography," Appl. Phys. Lett 67(21), 3114-3116, 1995	
	A19	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).	
	A20	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.	
	A21	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).	
	A22	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.	
	A23	FELDMAN et al., "Wafer chuck for manification correction in x-ray lithography," American Vacuum Society, 1998, pp. 3476-3479.	
	A24	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).	
	A25	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning", Proc. of SPIE, 1999, pp. 379-389, vol. 3676.	
	A26	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).	
	A27	RUCHHOEFT et al., "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," Journal of Vacuum Science and Technology, 1999, pp. 2965-2982, vol. 17.	

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				First Named Inventor	Sreenivasan et al.
				Group Art Unit	1732
				Examiner Name	Unassigned
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	A28	CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering, Journal of the International Societies for Precision Engineering and Nanotechnology, 2001, pp. 192-199, vol. 25.	
	A29	CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes," U.S. Patent Application 09/698,317. Filed with USPTO on October 27, 2000.	
	A30	SREENIVASAN et al., "High-Resolution Overlay Alignment Methods and Systems for Imprint Lithography," U.S. Patent Application 09/907,512. Filed with USPTO on July 16, 2001.	
	A31	CHOI et al., "Method and System of Automatic Fluid Dispensing for Imprint Lithography Processes," U.S. Patent Application 09/908,455. Filed with USPTO on July 17, 2001.	
	A32	CHOI et al., "Methods for High-Precision Gap and Orientation Sensing Between a Transparent Template and Substrate for Imprint Lithography," U.S. Patent Application 09/920,341. Filed with USPTO on August 1, 2001.	
	A33	BAILEY et al., "Template for Room Temperature Low Pressure Micro- and Nano-Imprint Lithography," U.S. Patent Application 09/976,681. Filed with USPTO on October 12, 2001.	
	A34	VOISIN, "Methods of Manufacturing a Lithography Template," U.S. Patent Application 10/136,188, Filed with USPTO on May 1, 2002.	
	A35	SREENIVASAN et al., "Step and Repeat Imprint Lithography Systems," U.S. Patent Application 10/194,414. Filed with USPTO July 11, 2002.	
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	A37	OTTO M. et al., "Step and Repeat UV-Nanoimprint Lithography: Material Issues," Nanoimprint and Nanoprint Technology Conference, San Francisco, December 11-13, 2002.	
	A38	JOHNSON, et al., "Advances in Step and Flash Imprint Lithography," SPIE Microlithography Conference, February 23-28, 2003.	

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A39	CHOI et al., "A Chucking System and Method for Modulating Shapes of Substrates," U.S. Patent Application 10/293,224. Filed with USPTO on November 13, 2002.	
	A40	VOISIN, "Methods of Inspecting A Lithography Template," U.S. Patent Application 10/293,919. Filed with USPTO on November 13, 2002	
	A41	CHOI et al., "A Method For Modulating Shapes of Substrates," U.S. Patent Application 10/316,963. Filed with USPTO on December 11, 2002.	
	A42	NIMMAKAYALA et al., "Magnification Correction Employing Out-of-Plane Distortion of a Substrate," U.S. Patent Application 10/735,110. Filed with USPTO on December 12, 2003.	

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